

What is claimed is:

1. An optical moisture detector for measuring ambient light conditions comprising:
 an optical moisture sensor for sensing the presence of moisture on a moisture collecting surface, the sensor operable to emit a signal corresponding to sensed conditions; and
 processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison.

2. The optical moisture detector of claim 1 further comprising:
 means, responsive to the control signal, for controlling a light generating device.

3. The optical moisture detector of claim 1 further comprising:
 timer means for disabling the processor means from comparing the value to the predetermined value for a predetermined period of time.

4. The optical moisture detector of claim 1 wherein the optical moisture sensor is operably mountable with respect to a windshield of a motor vehicle.

5. The optical moisture detector of claim 1 wherein the optical moisture sensor is operably positionable in a spaced relationship relative to a windshield of a motor vehicle.

203

6. The optical moisture detector of claim 1 wherein the
 2 optical moisture sensor further comprises:
 3 a CCD camera for collecting data to be sent as signals to the
 4 processor means.

7. The optical moisture detector of claim 1 wherein the
 2 optical moisture sensor further comprises:
 3 a CMOS camera for collecting data to be sent as signals to
 4 the processor means.

8. The optical moisture detector of claim 1 wherein the
 2 optical moisture sensor further comprises:
 3 a photo array having a plurality of dark pixels and a plurality
 4 of standard pixels for collecting data to be sent as signals to the
 5 processor means.

9. The optical moisture detector of claim 1 wherein the
 2 processor means further comprises:
 3 a microprocessor for operably receiving the signal from the
 4 sensor.

204

10. The optical moisture detector of claim 1 wherein the
 2 processing means compares the absolute ambient light value to a first
 3 predetermined value to determine if a signal to turn on a light generating
 4 device is to be sent, and compares the absolute ambient light value to a
 5 second predetermined value to determine if a signal to turn off the light
 6 generating device is to be sent.

11. An optical moisture detector for measuring ambient light conditions comprising:
 an optical moisture sensor for sensing the presence of moisture on a windshield of a vehicle, the sensor operable to emit a signal corresponding to sensed conditions; and
 processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison.

12. The optical moisture detector of claim 11 further comprising:
 means, responsive to the control signal, for controlling a light generating device.

13. The optical moisture detector of claim 11 further comprising:
 timer means for disabling the processor means from comparing the value to the predetermined value for a predetermined period of time.

14. The optical moisture detector of claim 11 wherein the processor means emits the control signal only if at least two successive comparisons indicate the value is less than the predetermined value.

15. The optical moisture detector of claim of claim 11 wherein the optical moisture sensor is operably mountable with respect to a windshield of a motor vehicle.

1 16. The optical moisture detector of claim 11
 2 wherein the optical moisture sensor is operably positionable in a spaced
 3 relationship relative to a windshield of a motor vehicle.

Paul

2 17. A method of measuring ambient light conditions
 3 comprising:
 4 sensing the presence of moisture on a moisture collecting
 5 surface with an optical moisture sensor, the sensor operable to emit a
 6 signal corresponding to the sensed conditions;
 7 receiving the signal and determining an absolute ambient
 8 light value corresponding to the existing ambient light conditions with
 9 processor means;
 10 comparing the value to a predetermined value with the
 11 processor means; and
 12 emitting a control signal with the processor means if the
 13 value is less than the predetermined value as a result of the comparing
 step.

1 18. The method of claim 17 further comprising the step
 2 of:
 3 mounting the optical moisture sensor to the windshield of a
 4 vehicle.

1 19. The method of claim 17 further comprising the step
 2 of:
 3 disposing the optical moisture sensor in a spatial relationship
 4 relative to the windshield of a vehicle.

4/23

[illegible]